BookletChartTM

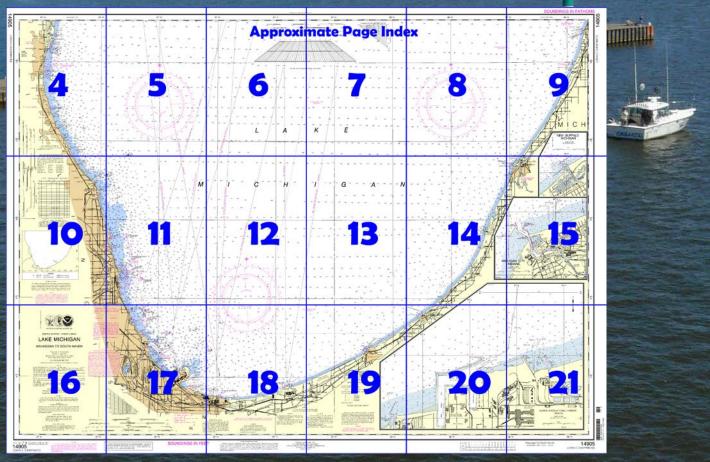
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Lake Michigan – Waukegan to South Haven NOAA Chart 14905

A reduced-scale NOAA nautical chart for small boaters When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the National Oceanic and Atmospheric Administration National Ocean Service Office of Coast Survey

<u>www.NauticalCharts.NOAA.gov</u> 888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart[™]?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=149 05



(Selected Excerpts from Coast Pilot)
The St. Joseph River flows into Lake
Michigan 22 miles SSW of South Haven
and 107 miles S of Little Sable Point. The
port cities of St. Joseph, Mich., and
Benton Harbor, Mich., are on the W and E
sides of the river, respectively.

Joseph North Pierhead Light (42°07.0'N., 86°29.7'W.), 31 feet above the water, is shown from a white cylindrical tower on the outer end of the N pier; a fog signal is at the light. This light is sometimes

obscured by city lights in the background.

Michigan City, Ind. **Caution.**—Strong NNW winds may cause large swells in the outer harbor and the entrance channel. Under heavy sea conditions, small craft are advised to use extreme caution when transiting this area.

Burns International Harbor. The Indiana Port Commission has constructed a bulkhead and fill in the area between East Harbor Arm and West Harbor Arm, and Bethlehem Steel Corporation has constructed a bulkhead and fill that extends about 1 mile E of the harbor entrance. These bulkheads are riprapped with stone. Mariners are advised to exercise caution when navigating in this area.

Dangers.—A submerged pipe, covered 1½ feet, has been reported about 125 feet N of the light marking the N side of the harbor entrance. Indiana Harbor. **Caution.**—A floating oil boom is permanently moored across Lake George Branch just above the dredged channel.

Dangers.—Several shoals are in the approach to Calumet Harbor. A rocky bank with a least depth of 21 feet is 1 mile NE of Calumet Harbor Breakwater South End Light. A lighted buoy at the SE end of the ledge marks the N side of the dredged approach channel. Two 23-foot spots and a 27-foot spot, 2 to 2.5 miles NE of Calumet Harbor Light, are marked on the E side by a lighted bell buoy. **Calumet Bar,** an extensive area with depths of 22 to 24 feet, is on the NE side of the breakwater and extension.

Fluctuations of water level.—In addition to the normal fluctuations which affect Lake Michigan somewhat uniformly, local oscillations of up to 2 feet above or below Low Water Datum are reported to have durations of a few minutes to a few hours. These changes are produced by winds and barometric pressure changes which accompany storms. Strong sustained winds may also affect the water levels for as long as a day.

Caution.—Since the opening of Calumet Sag Channel, the Calumet River has a gentle flow away from Lake Michigan except at times of sudden fluctuations of water levels from heavy rains and/or flooding.

Anchorages.—General and small-craft anchorages are in Chicago outer harbor and in the small-craft basin at the SW corner of the outer harbor. (See 33 CFR 110.1, 110.83, and 110.205, chapter 2, for limits and regulations.)

Danger.—A rock-filled pile pier 3 to 6 feet high, marked at the outer end by a private light, extends 0.5 mile E from shore into the outer harbor, parallel to and 400 feet N of the Chicago River entrance lock.

Caution.—Submerged wrecks are along the W side of North Branch Canal about 0.4 and 0.8 mile above the junction with North Branch. The northernmost wreck is marked by a buoy.

Four Mile Crib, marked by a private light with a private sound signal, is 2.6 miles ESE of Chicago Harbor Light.

Wilmette, Ill. **Caution.**—When approaching the harbor during periods of reduced visibility, mariners are cautioned against mistaking the breakwater for the N pier. Vessels approaching from the N are advised to pass well clear of the N pier before hauling around to the entrance. Waukegan, Ill. **Dangers.**—A foul area with a number of detached rock ledges is E of the harbor entrance. The area is marked by a buoy on the E side and a lighted buoy on the N side. Mariners should keep to N of the lighted buoy.

Caution.—Sudden wind direction or barometric pressure changes may cause water levels in the harbor to rise or fall as much as 3 feet in a short time.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Cleveland

Commander 9th CG District Cleveland, OH

(216) 902-6117

Pump-out facilities

For more detail of
Gary Harbor see Chart No. 14927
Calumet Harbor Indiana Harbor Buffington Harbor See Chart No. 14929
Buffington Harbor see Chart No. 14928

ConRail CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTIO

SUBMARINE PIPELINES AND CABLES Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pioeline Area

Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally burled may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, draggine, or traville.

Covered wells may be marked by lighted or unighted buoys.

BADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners

Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

KWO-39	162.550 MHz
KXI-41	162.500 MHz
KZZ-81	162.425 MHz
WWF-34	162.475 MHz
KZZ-76	162.450 MHz
WXJ-57	162.400 MHz
	KXI-41 KZZ-81 WWF-34 KZZ-76

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National

Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙(Accurate location) o(Approximate location)

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.126" northward and 0.166" westward to agree with this chart.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

Table of Selected Chart Notes

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE

NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakos Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/vessel_sewage/vsdnozone.html.

LORAN-C

GENERAL EXPLANATION

8970.....89,700 Microseconds

STATION TYPE DESIGNATORS: (Not individual station letter designators).

EXAMPLE: 8970-Y

RATES ON THIS CHART

8970-X 8970-Y

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on theoretically determined overland signal propagation delays. They have not been verified by comparison with survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged particularly in the near shore areas. Mariners should proceed with caution.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

CAUTION POTABLE WATER INTAKE (PWI)

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93) Consult U.S. Coast Pilot 6 for important supplemental information.

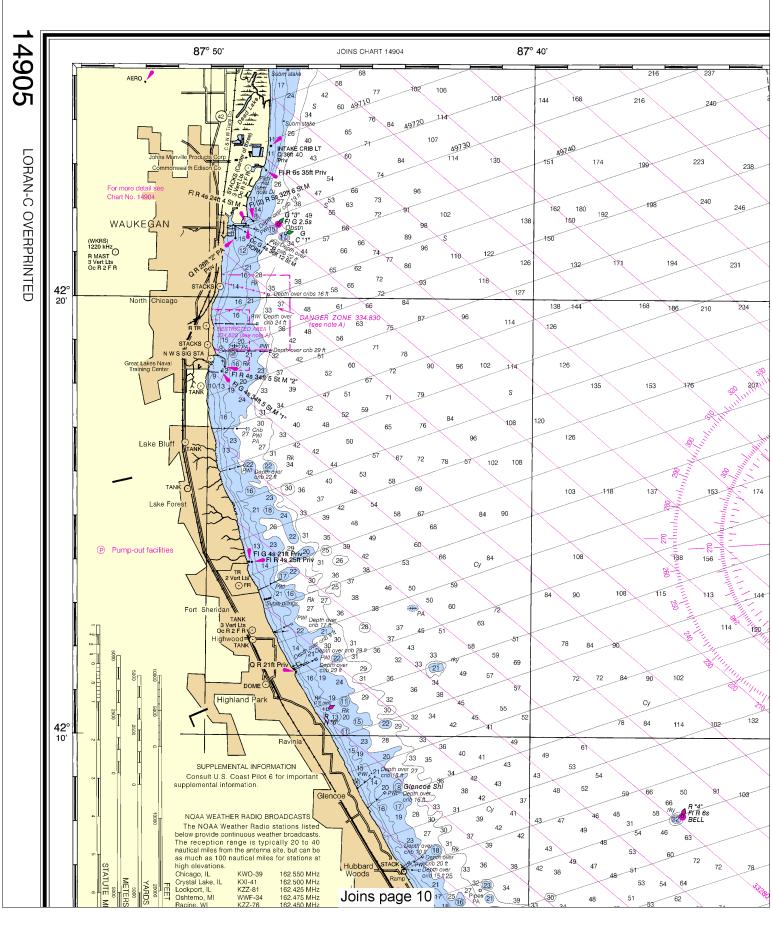
AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

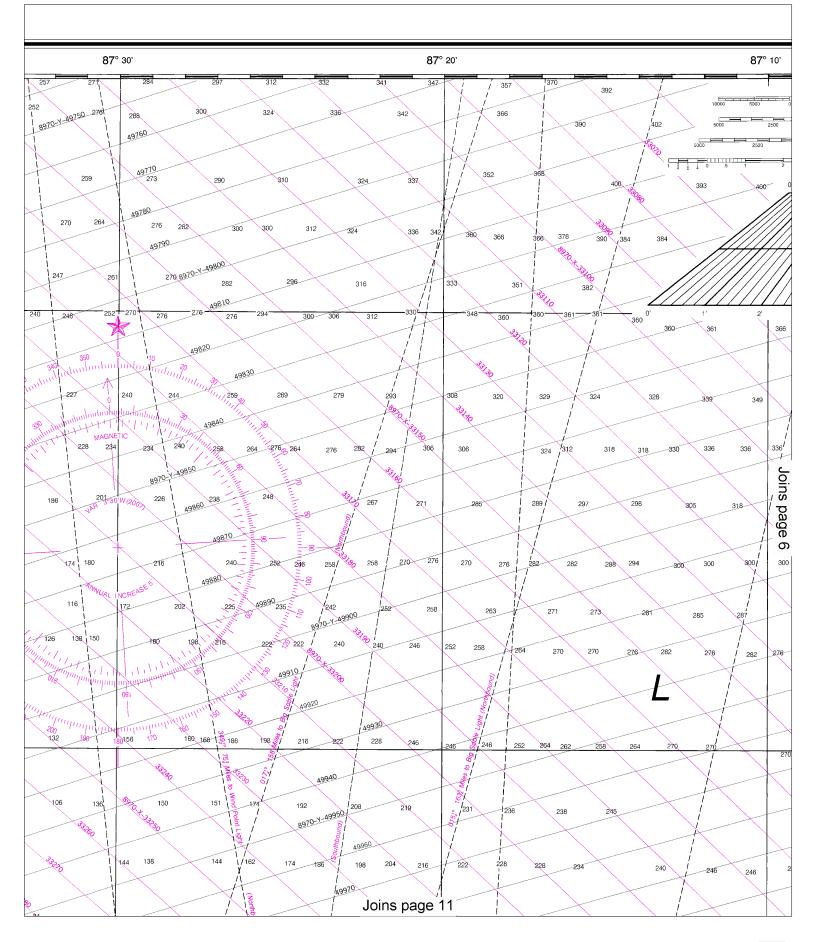
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Piot 6.

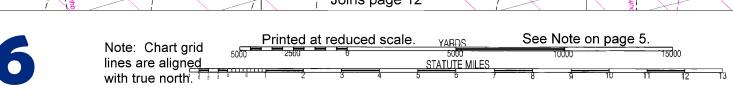
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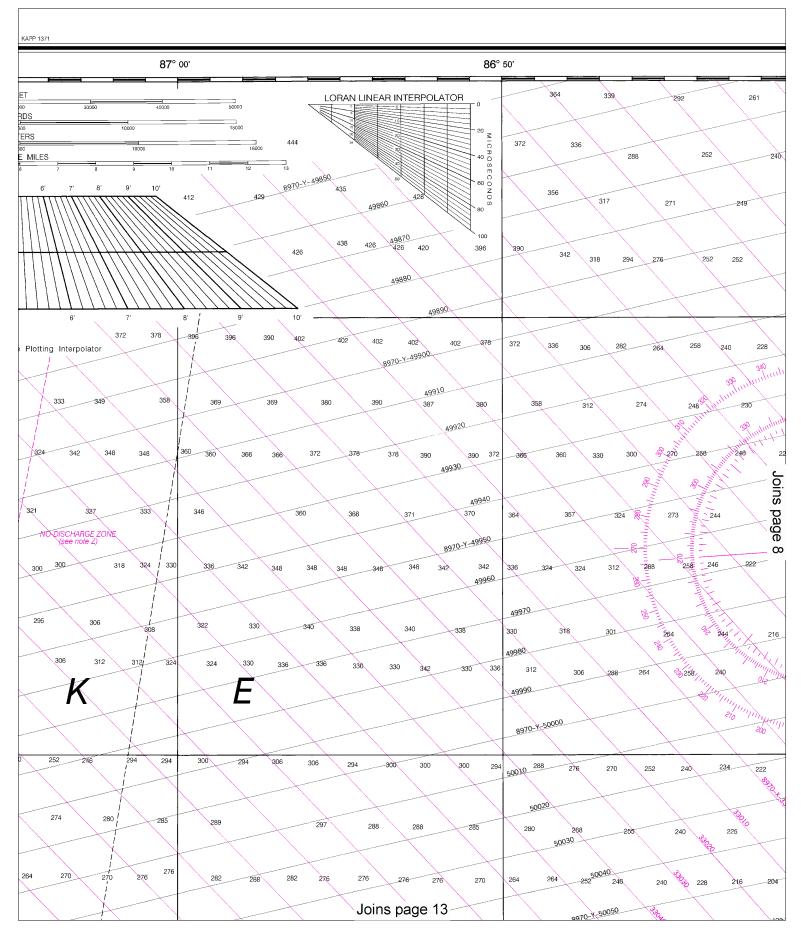
SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

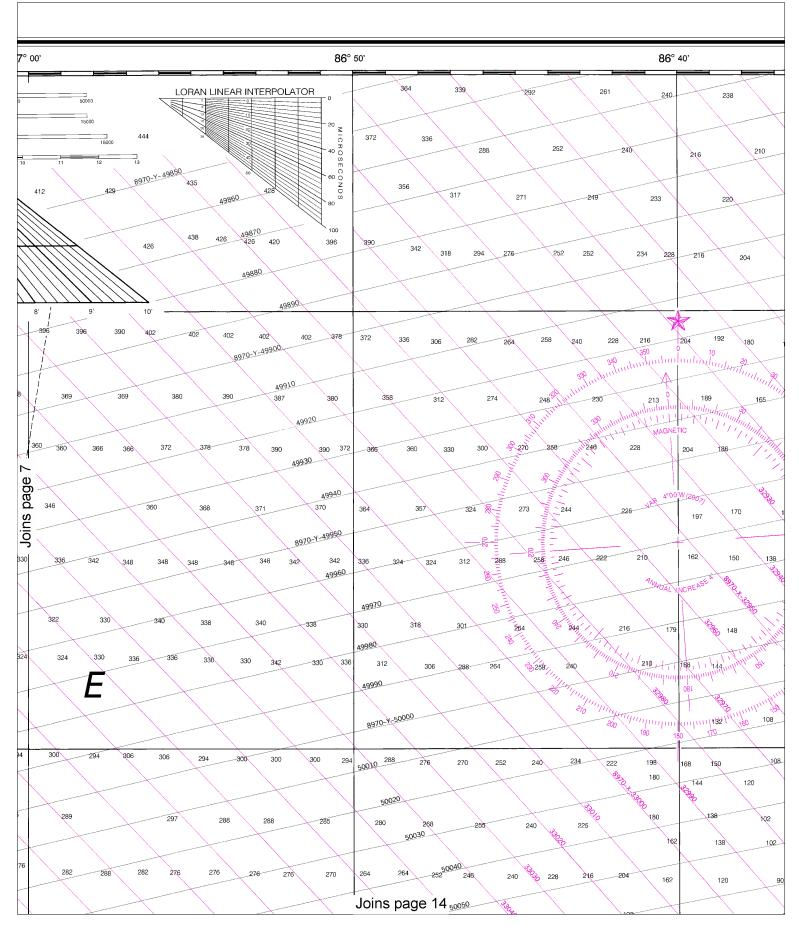




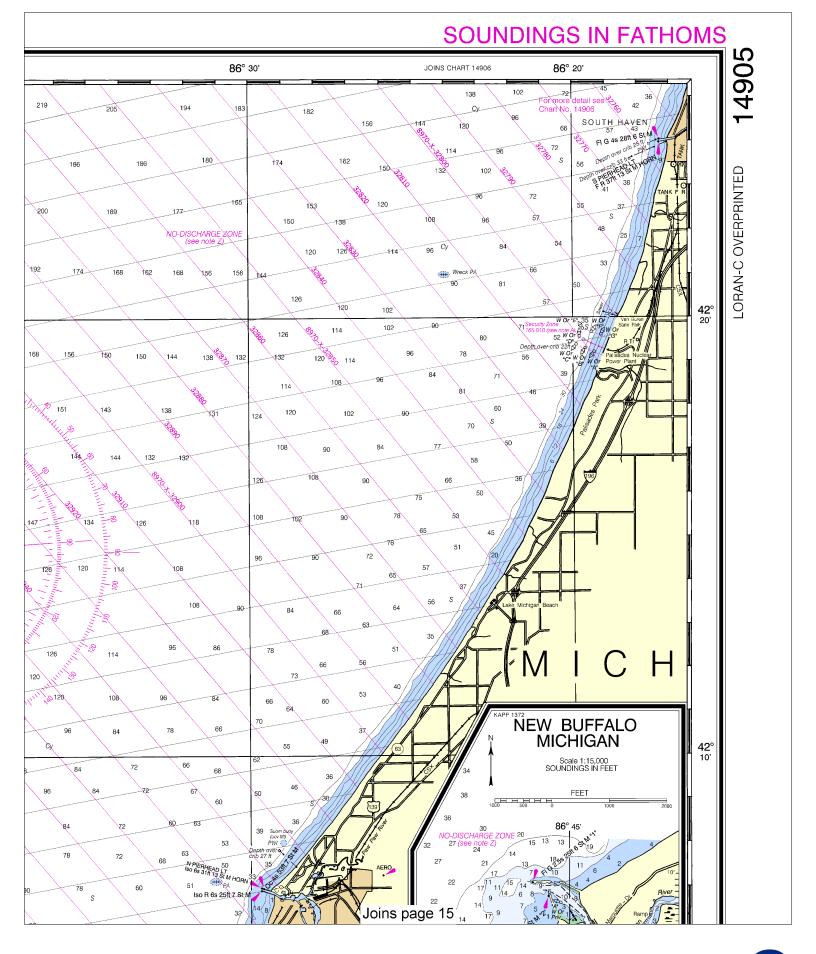


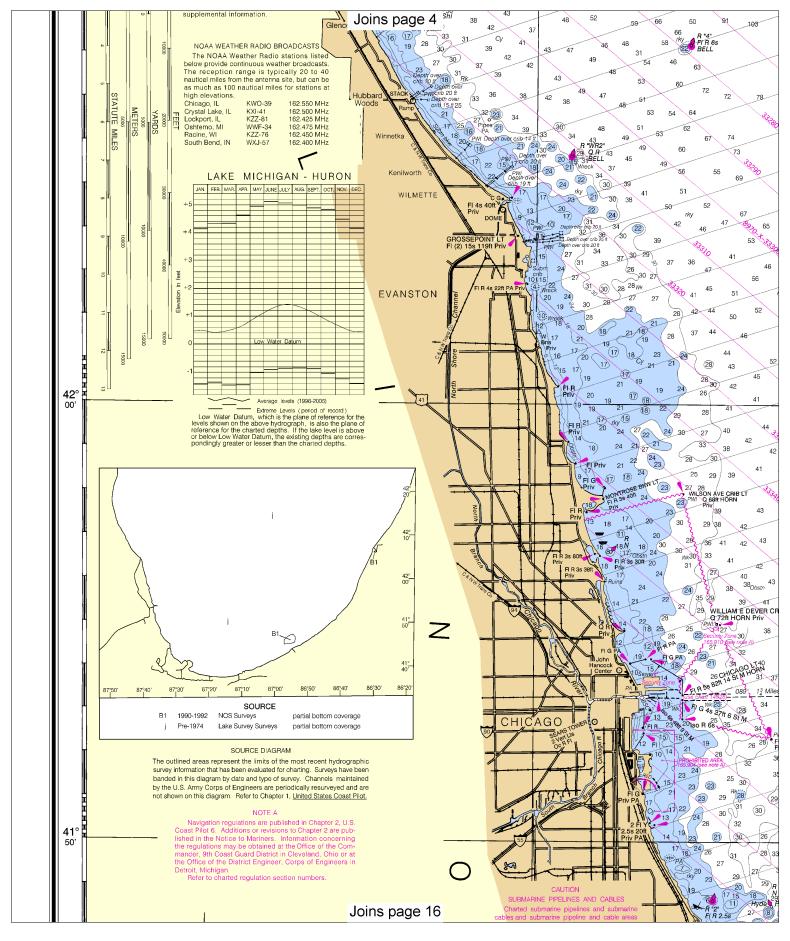




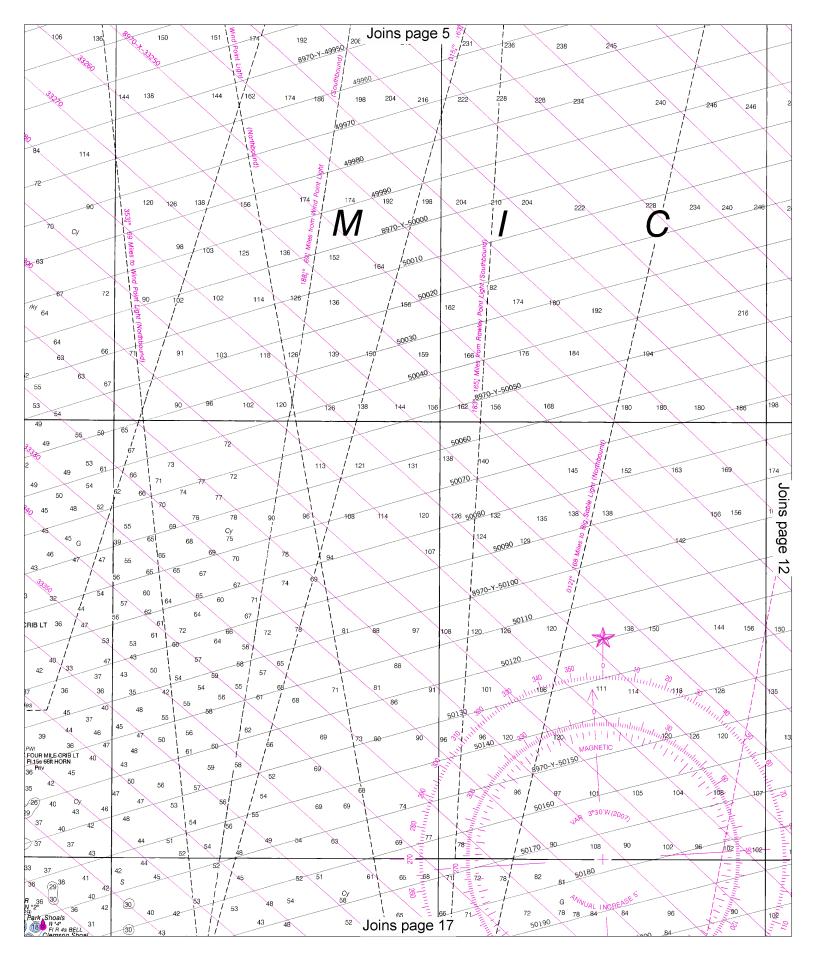


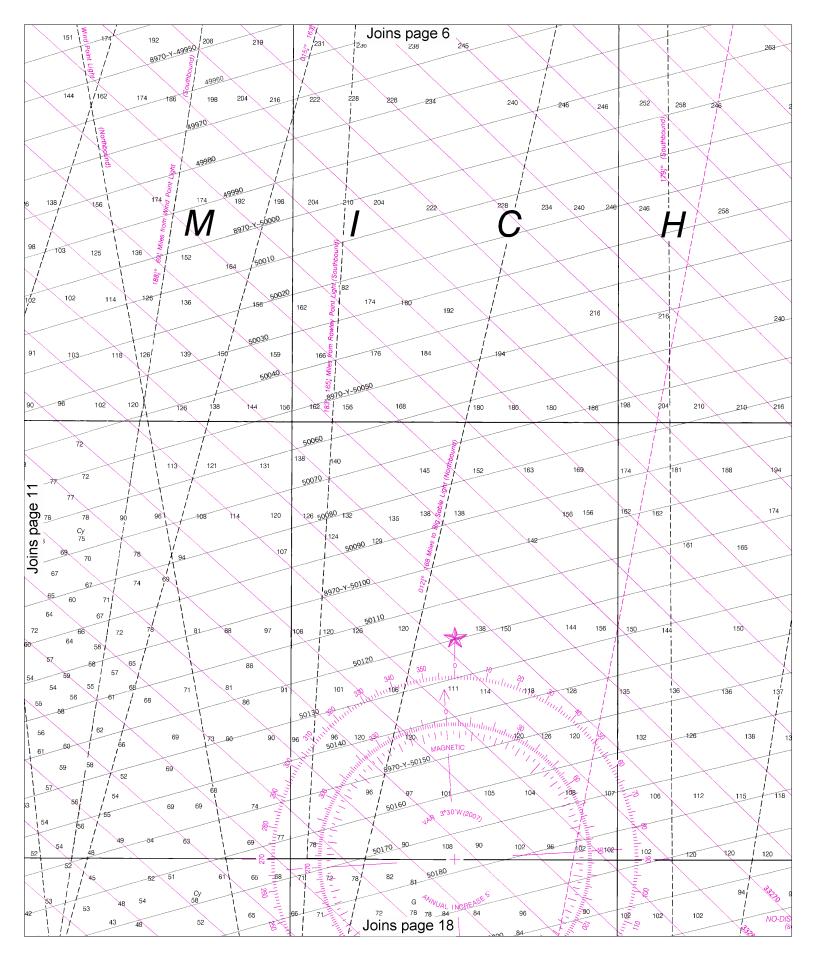




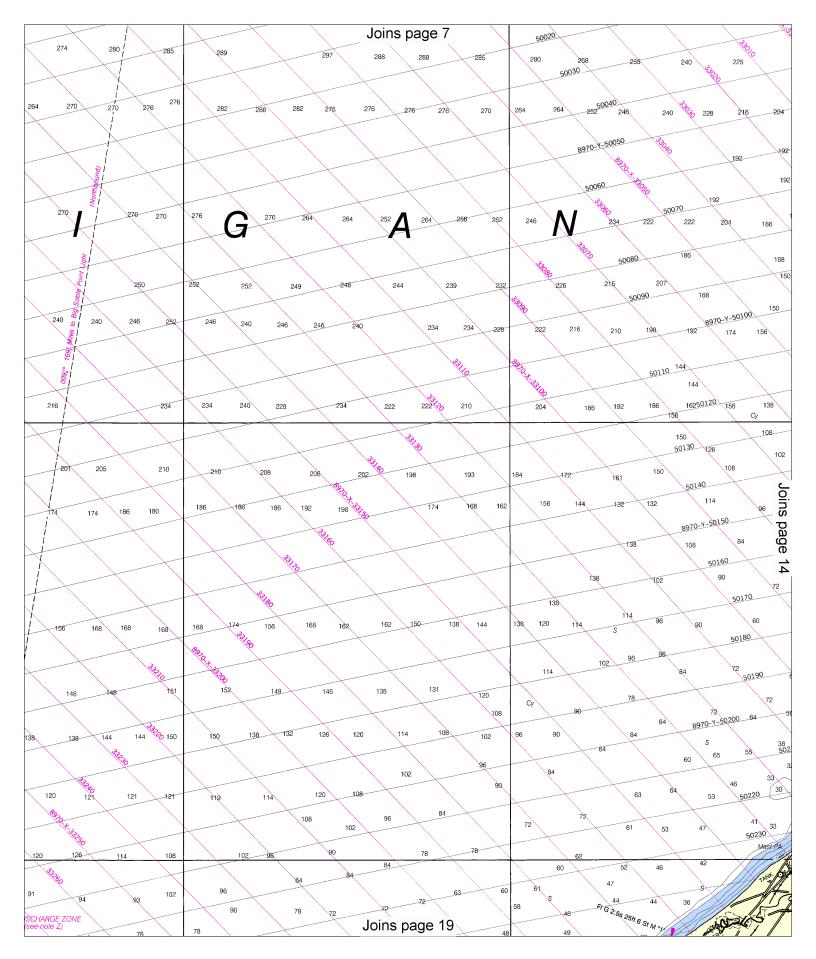


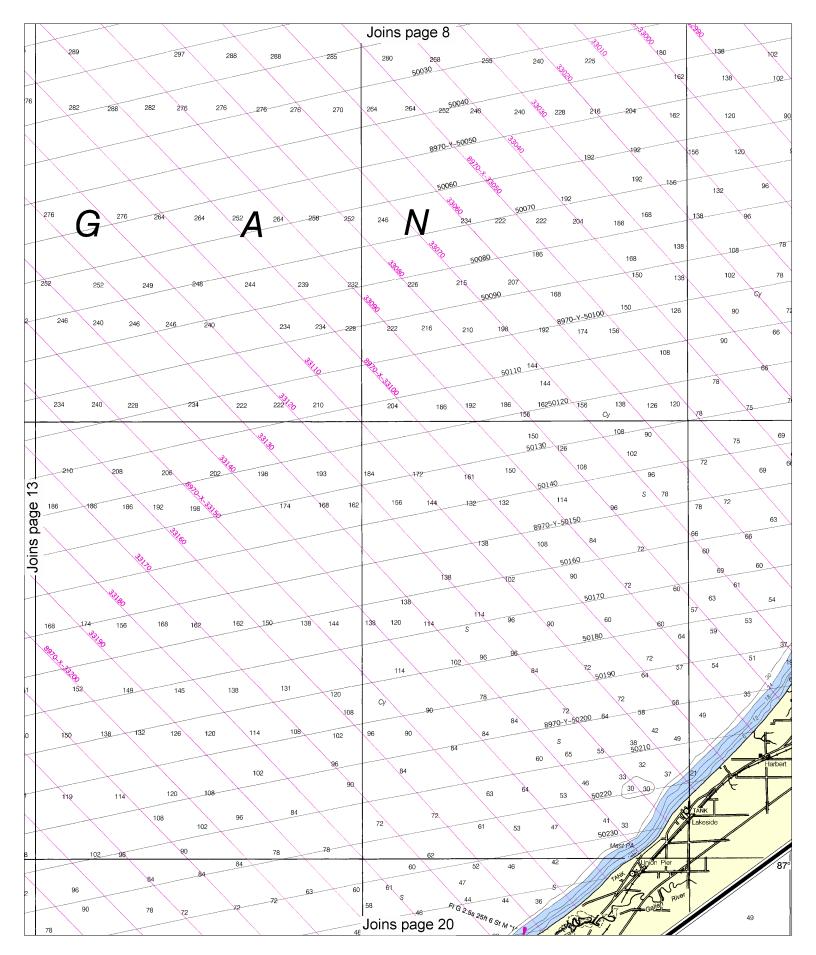
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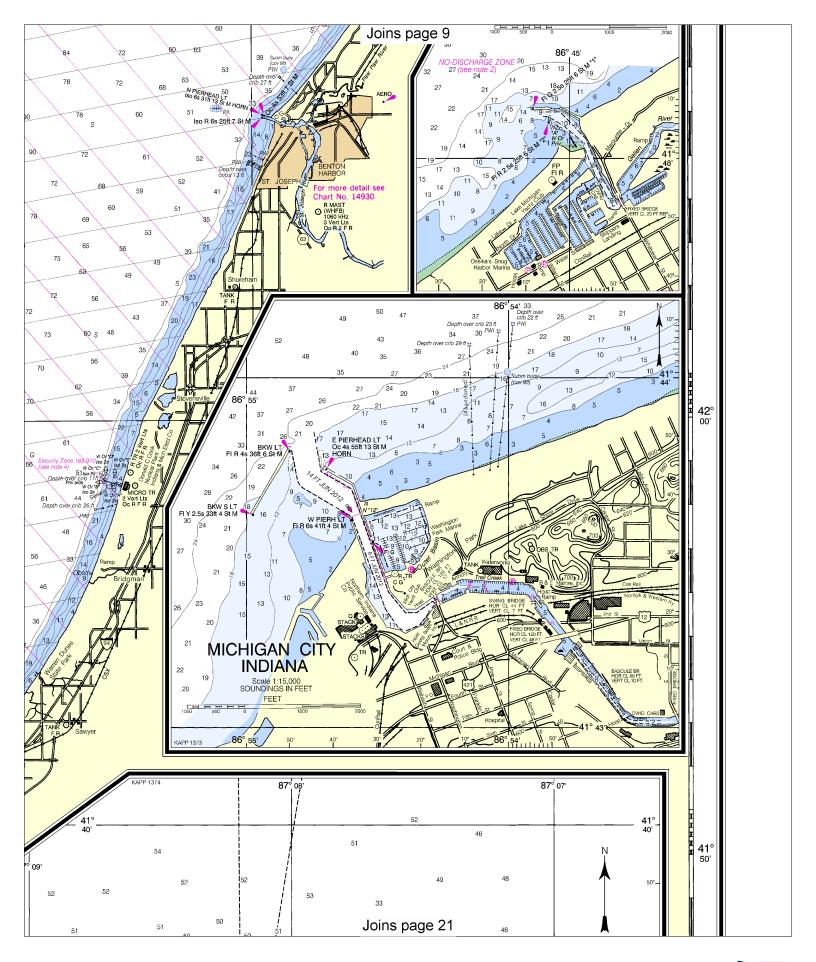


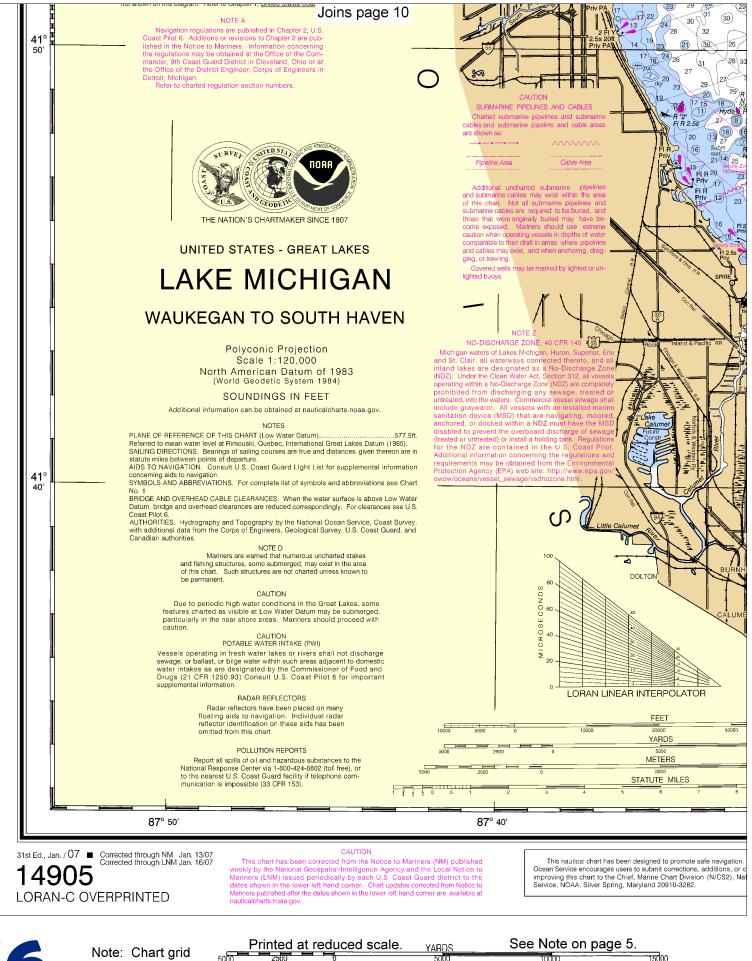
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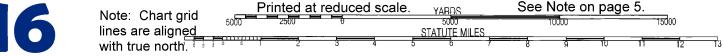


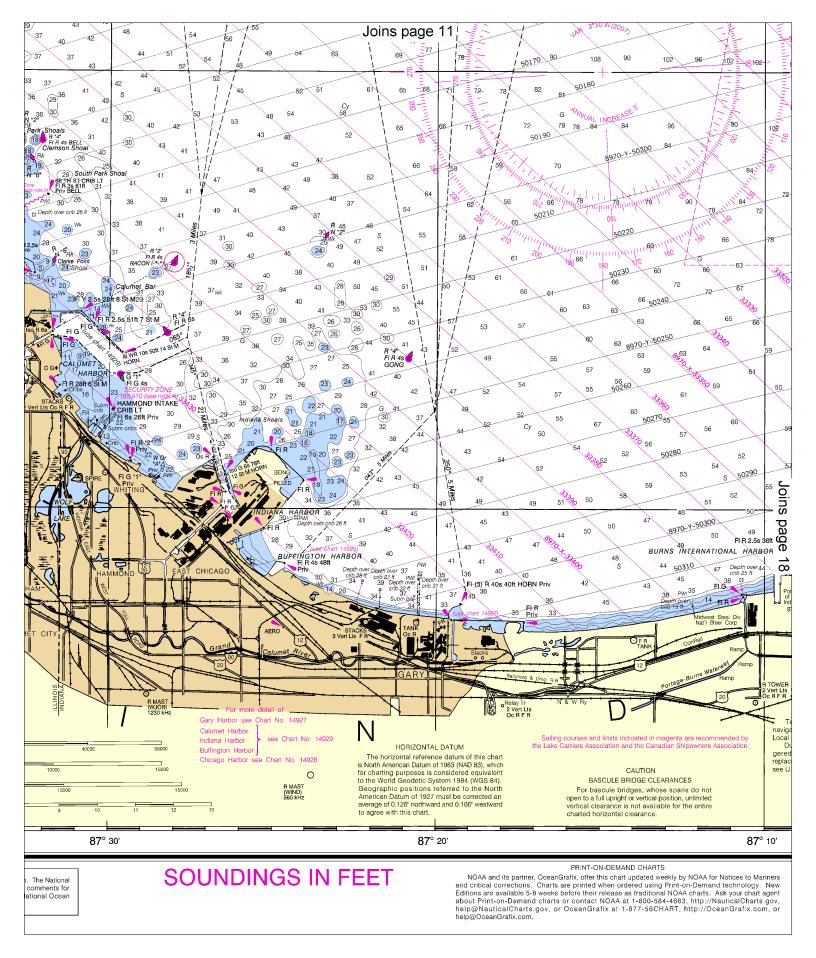


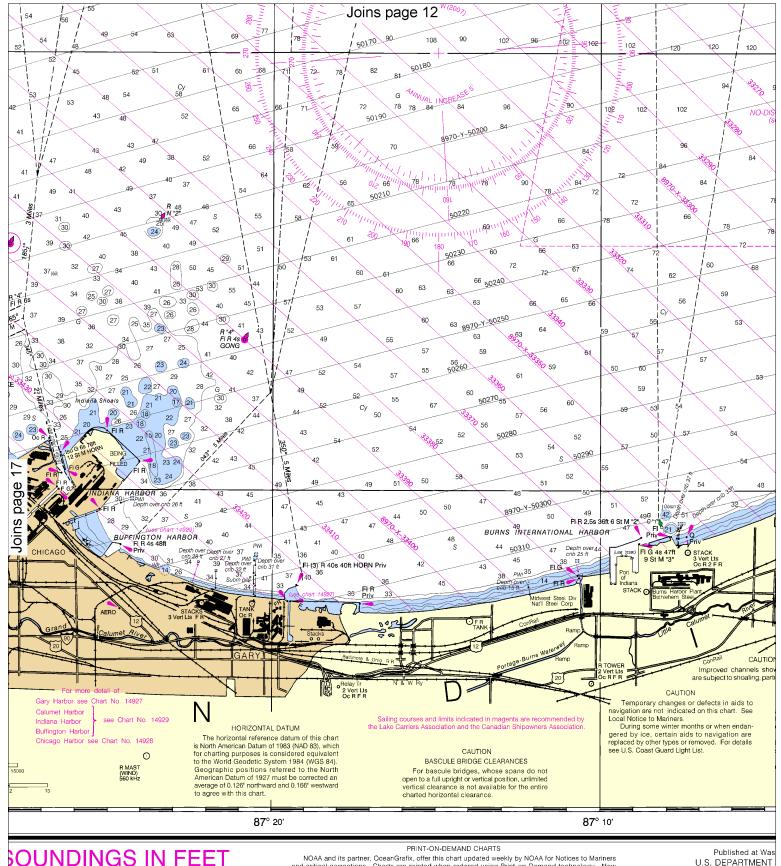
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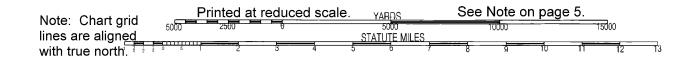


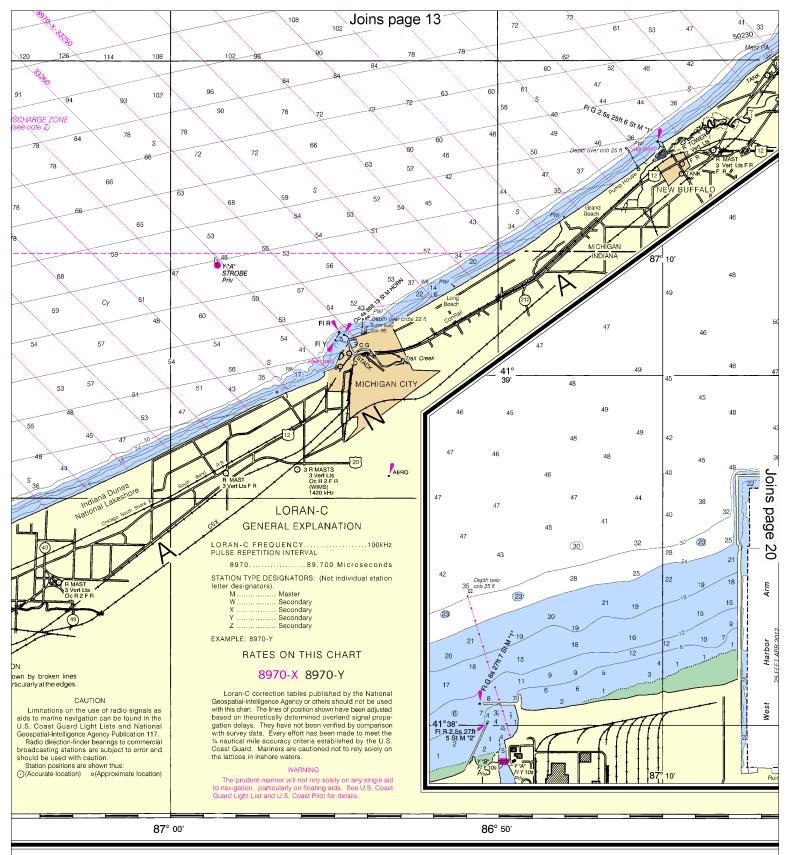


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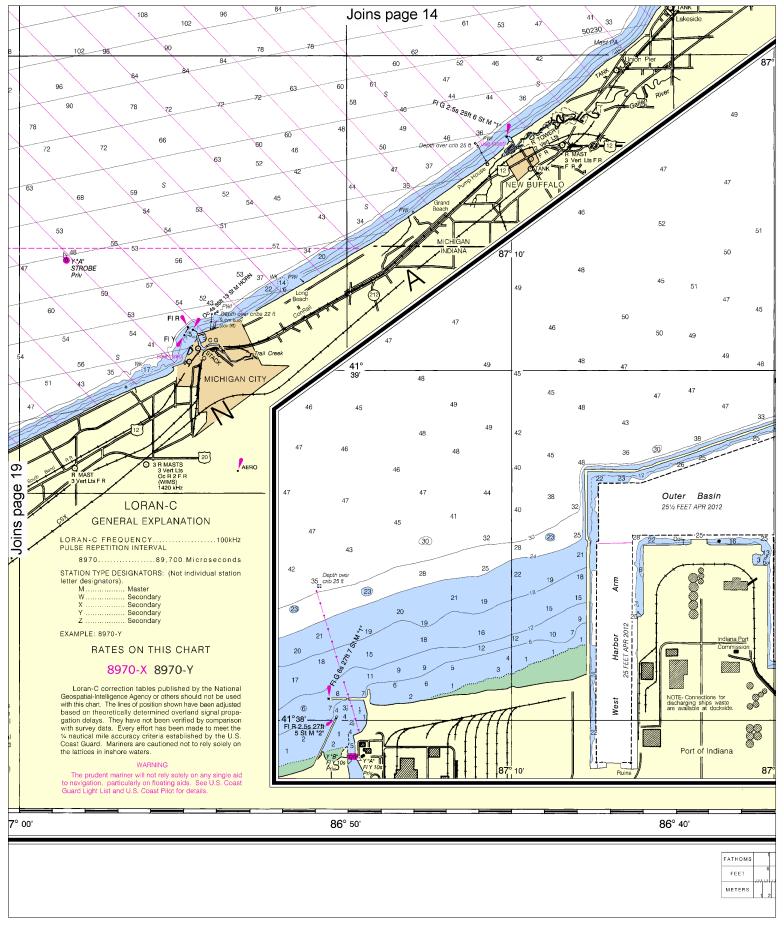
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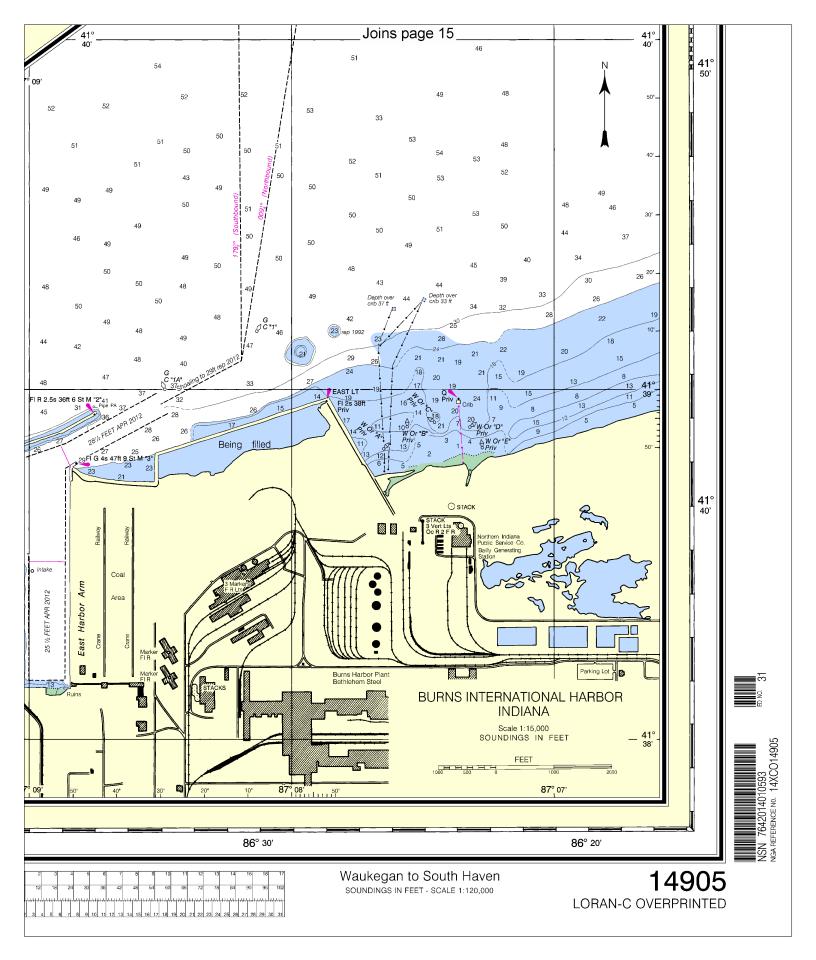
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sshington, D.C. FOF COMMERCE IOSPHERIC ADMINISTRATION EAN SERVICE BURVEY







VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here. Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of

Emergency; Number of People on Board.

- · Release transmit button.
- Wait for 10 seconds If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information — http://www.nauticalcharts.noaa.gov

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Chart and chart related inquiries and comments — http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs

Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html

Coast Pilot online — http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm

Tides and Currents — http://tidesandcurrents.noaa.gov

Marine Forecasts — http://www.nws.noaa.gov/om/marine/home.htm

National Data Buoy Center — http://www.ndbc.noaa.gov/

NowCoast web portal for coastal conditions — http://www.nowcoast.noaa.gov/

National Weather Service — http://www.weather.gov/

National Hurrican Center — http://www.nhc.noaa.gov/

Pacific Tsunami Warning Center — http://ptwc.weather.gov/

Contact Us — http://www.nauticalcharts.noaa.gov/staff/contact.htm



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